

## MATERIAL SAFETY DATA SHEET

### PRODUCT: pH RAISE LIQUID 600ML

**Date of Issue:** 26 OCT 2018    **Valid until:** 26 OCT 2023    **GHS Format**

#### 1. IDENTIFICATION OF MATERIAL & SUPPLIER

**Product Name:** pH Raise Liquid for Hydroponics 600ml

**Other names:** Potassium Carbonate Liquid

**Manufacturer's code:** MTO3106

**Recommended use:** an aqueous concentrated alkaline solution for increasing the pH of Hydroponic solutions or water.

**Manufacturer/Supplier Information:**

**Name:** MANUTEC PTY LTD

**Address:** 30 Jonal drive, Cavan, South Australia 5094

**Telephone No:** +61-8-8260 2277    **Fax:** +61-8-8260 2399

**Email:** manutec@manutec.com.au

**Emergency contact only:** Poisons Information Centre (Australia) 131126

#### 2. HAZARDS IDENTIFICATION

Poisons Schedule: 5

**Hazard Classification:** Hazardous according to the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

**Hazard Categories:** Skin Corrosion/Irritation - Category 1B  
Serious Eye Damage/Irritation - Category 1

**Pictograms:**



**Signal Word:** DANGER

**Hazard Statements:** H314 causes severe skin burns and eye damage

**Precautionary Statements:**

**Prevention** P280 Wear eye protection/face protection.  
P264 Wash hands thoroughly after handling.



- Response** P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P312 Call a POISON CENTER or doctor if you feel unwell.  
P305 + P351 + P338+ P310  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- Storage** P403 + P233 Store in a well-ventilated place.  
Keep container tightly closed.  
P405 Store locked up.
- Disposal** P501 Dispose of contents/container in accordance with local / regional / national /international regulations.

### National Transport Commission (Australia)

### Dangerous Goods Classification

**NOT Dangerous** Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	Formula	CAS Number	Proportion
Water	H <sub>2</sub> O	7732-18-5	50 %
Potassium Carbonate	K <sub>2</sub> CO <sub>3</sub>	584-08-7	50%

## 4. FIRST AID MEASURES

If poisoning occurs, please contact immediately Poisons Information Centre (Australia) on 131126

- Ingestion:** Rinse mouth with water immediately. If swallowed, don't induce vomiting. Give a glass of water to drink, but never give anything by mouth to unconscious person. If vomiting occurs give additional water. Seek medical advice immediately.
- Eye:** If in Eyes, Rinse cautiously with water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes.

	Immediately call a Poison Centre or doctor/physician.
<b>Skin:</b>	Remove contaminated clothing. Wash affected part with soap and clean water thoroughly. Any symptoms such as swelling, redness, blister or irritation occurs, seek immediate medical attention.
<b>Inhaled:</b>	Remove victim to fresh air. Remove contaminated clothing and make victim comfortable position. Seek medical help if victim still uncomfortable and develop any symptoms.
<b>Aid Facilities:</b>	Poisons Information Centers in each State capital city may provide additional assistance (Ph. 131126).
<b>Advice to doctor:</b>	No special advice, treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**General Measures:** If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

**Flammability Conditions:** Non-combustible, Decomposes above 950 Deg C.

**Extinguishing media:** Non-combustible, however, if material is involved in a fire, use appropriate extinguishing media most suitable for surrounding fire conditions

**Fire and Explosion Hazard:** Product itself not considered to be an explosion hazard. Mixing product with sodium hydro-sulphite, aluminum powder and benzaldehyde may cause mixture to explode.

**Hazardous Products of Combustion:** Potassium carbonate and lime will react in the presence of water to form caustic potash (K<sub>2</sub>O). Thermal decomposition may yield oxides of carbon and potassium.

**Special Fire Fighting Instructions:** Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

**Personal Protective Equipment:** Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapors or products of combustion.

## 6. ACCIDENTAL RELEASE MEASURES

**General Response Procedure:** Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Use clean, non-sparking tools and equipment.

**Small spills:** Ensure to wear appropriate protective gear (such as gloves/goggles) as appropriate and soak with non combustible absorbent materials like sand or soil and dispose as general waste.

**Large spills:** Ensure to wear appropriate protective gear and collect in to properly Labelled containers. Avoid material entering in to drainage or waterways.

Advice or contact local council or environmental authority or emergency service as appropriate.

See section 13 for disposal information.

## 7. HANDLING AND STORAGE

**Handling:** Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product fumes.

**Storage** Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.

**Container:** Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**General:** No exposure standard has been established for this product by the Safe Work Australia (SWA).NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Exposure Limits** No Data Available

**Biological Limits** No information available on biological limits for this product.

**Engineering measures:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

**Control of exposition limit:**

Respiratory protection: Keep ventilated and use mask during handling large volumes

Hand protection: Rubber or plastic gloves

Eye protection: Safety glasses

Skin protection: Use adequate cloth

**Personal Protection Equipment**

**RESPIRATOR:** Where airborne potassium carbonate mists may be present, a NIOSH/MSHA approved high-efficiency particulate filter with full face piece or self-contained breathing apparatus should be used. Follow any applicable respirator use standards and regulations (AS1715/1716).

**EYES:** Chemical goggles, full-face shield (AS1715/1716).

**HANDS:** Impervious gloves of chemically resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse (AS2161).

CLOTHING: Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse (AS3765/2210).

#### **Hygienic and personal protection practices while handling the product**

Keep the material/product away from food and drink, animal feed.

When using, don't eat, drink or smoke

Wash hands or affected area thoroughly prior to eating, drinking or smoking

Avoid contact with skin, eye and inhalation of any dust from the product.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form:</b>	Clear Liquid
<b>Colour:</b>	Colorless
<b>Odour:</b>	Characteristic
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable
<b>pH:</b>	11.60
<b>Vapour Press kPa 025C:</b>	Nil
<b>Specific Gravity:</b>	1.498
<b>Flashpoint (C):</b>	Non flammable
<b>Flammability Limits:</b>	Non flammable
<b>Solubility in water:</b>	Completely miscible in water

## **10. STABILITY AND REACTIVITY**

**Chemical Stability** Product is stable under normal conditions of use, storage and temperature.

**Conditions to Avoid:** Exposure to high heat

**Materials to Avoid** Lime, chlorine trifluoride, magnesium, acids, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.  
Incompatible with acids. Incompatible with metals.

**Hazardous Decomposition Products:** Potassium carbonate and lime will react in the presence of water to form caustic potash (K<sub>2</sub>O).  
Thermal decomposition may yield oxides of carbon and potassium.

#### **Hazardous Polymerization**

Hazardous Polymerization has not been reported.

## **11. TOXICOLOGICAL INFORMATION**

#### **TOXICITY DATA FOR POTASSIUM CARBONATE:**

Oral LD50 (rat) 1870 mg/kg

Oral LD50 (mouse) 2570 mg/kg

Inhalation LC50: >4.96 mg/l

Dermal LD50: >2000 mg/kg

In general when the product is used and handled safely and as per directions on the label and per safety data sheet instructions, no adverse effects are expected. However in case of mishandling or over ingestion of product, may result in toxicity symptoms

- Eye Irritant** A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Severe contamination of eyes can result in permanent injury.
- Ingestion** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
- Inhalation** Breathing high concentrations may be harmful. Breathing this material causes irritation of the throat and lungs with cough and difficult breathing.
- Skin Irritant** Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
- Carcinogen Category** No Data Available

## 12. ECOLOGICAL INFORMATION

- Eco toxicity** ECOTOXICITY DATA FOR POTASSIUM CARBONATE:  
LC50 Rainbow trout 68 mg/L/ 96h  
LC50 Bluegill sunfish 230 mg/L/ 96h  
Daphnia magna EC50 (hard water) = 430 mg/l/48h  
Daphnia pulex EC50 (soft water) = 200 mg/l/48h
- Mobility** Completely miscible in water.
- Environmental Fate** Do NOT allow excessive product to reach waterways, drains and sewers.
- Bioaccumulation Potential** This material is believed not to bioaccumulate and persist in environment. Leak or spill may increase pH of waterways and affect aquatic life.
- Environmental Impact** No Data Available

## 13. DISPOSABLE CONSIDERATIONS

- General Information:** Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
- Contaminated packaging:** Uncleaned empties should be disposed of in the same manner as the contents.

## 14. TRANSPORT INFORMATION

**Proper Shipping Name:** POTASSIUM CARBONATE LIQUID

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification**

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## 15. REGULATORY INFORMATION

Constituents or materials used in this product are covered by Australian Inventory of Chemical Substances (AICS)

Poisons Schedule (Aust) 5



## 16. OTHER INFORMATION

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### **STATEMENT OF DISCLAIMER:**

This Material Safety Data Sheet has been developed according to WHS Code of Practice Preparation of Safety Data Sheets for Hazardous Chemicals Guidelines and written in accordance with GHS format. All information is as accurate and up-to-date as possible. Since Manutec Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application. Manutec Pty Ltd will not be responsible for damages of any nature resulting from use of or reliance upon this information.

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